

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 25-42 are currently pending, Claims 25-42 having been added, and Claims 1-2, 5-12, 14, 16-18, 20-21, 23, and 24 having been canceled without prejudice or disclaimer. The changes and additions to the claims do not add new matter and are supported by the originally filed specification, for example, in original Claims 1-23; Figs. 1 and 8; page 21, lines 1-3; page 23, line 22 to page 24, line 7; page 26, line 20 to page 27, line 5; page 28, line 21 to page 29, line 2; page 29, line 23 to page 30, line 3; and page 32, line 5 to page 34, line 3.

In the outstanding Office Action, Claims 1, 2, 6, 7, 20, 21, 23, and 24 were rejected under 35 U.S.C. §103(a) being unpatentable over Saito (U.S. Pub. No. 2002/0052974) in view of Mitsubori et al. (U.S. Pub. No. 2002/0114002, hereafter “Mitsubori”) and Asakawa (U.S. Pub. No. 2001/0014227); Claim 5 was rejected under 35 U.S.C. §103(a) as unpatentable over Saito in view of Mitsubori, Asakawa, and Hayashi et al. (U.S. Patent No. 6,426,809, hereafter “Hayashi”); Claim 8 was rejected under 35 U.S.C. §103(a) as unpatentable over Saito in view of Mitsubori, Asakawa, and Kawai et al. (U.S. Patent No. 6,449,060, hereafter “Kawai”); Claim 9 was rejected under 35 U.S.C. §103(a) as unpatentable over Saito in view of Mitsubori, Asakawa, Kawai and Ikeda (U.S. Patent No. 6,788,339); Claims 10-11 were rejected under 35 U.S.C. §103(a) as unpatentable over Saito in view of Mitsubori, Asakawa, and Kouzaki (U.S. Patent No. 5,446,476); Claim 12 was rejected under 35 U.S.C. §103(a) as unpatentable over Saito in view of Mitsubori, Asakawa, and Kita (U.S. Pub. No. 2003/0011815); Claim 16 was rejected under 35 U.S.C. §103(a) as unpatentable over Saito in view of Mitsubori, Asakawa, and Yamada (U.S. Pub. No. 2004/0234148); Claim 17 was rejected under 35 U.S.C. §103(a) as unpatentable over Saito in view of

Mitsubori, Asakawa, and Horie et al. (U.S. Patent No. 6,480,624, hereafter “Horie”); and Claim 18 was rejected under 35 U.S.C. §103(a) as unpatentable over Saito in view of Mitsubori, Asakawa, and Nagarajan (U.S. Pub. No. 2002/0097452).

With respect to the rejection of Claims 1-2, 5-12, 14, 16-18, 20-21, 23, and 24 under 35 U.S.C. §103(a), Applicants submit that these claims have been canceled and new Claim 25 overcomes the outstanding grounds of rejection. Claim 25 recites, *inter alia*,

a color determination unit that determines whether the image data received by the image data receiving unit is full-color data or monochrome data;

a color conversion unit that performs color conversion on the image data that has been subjected to determination by the color determination unit and stored in the image data storage unit;

a format conversion unit that converts a format of the image data that has been subjected to the color conversion by the color conversion unit into a format compatible with the external device;

a color conversion change unit that changes the color conversion by the color conversion unit based on a result of determination by the color determination unit; and

a format change unit that changes the format into which the format conversion unit converts the format of the image data based on the result of the determination by the color determination unit.

Applicants respectfully submit that the applied art fails to disclose or suggest at least these features of new Claim 25.

Saito is directed to a copying machine for reading original documents and transmitting them to various devices (see para. [0022] of Saito). Fig. 1 shows a system of Saito in which a copying machine 1001 is on a network 1006 with a client computer 1005, file server 1004, and mail server 1003. Fig. 2 shows a block diagram of the copying machine, which includes a scanner 2070, a scanner image process module 2080, and a printer

image process module 2090 (see para. [0030]-[0031]). Saito describes that at the time of reading an image and storing it onto a hard disk drive, a user of the copying machine selects whether an image is a monochrome or color image.

However, as acknowledged in the Office Action with regard to previous Claim 1, Saito fails to disclose or suggest “a color determination unit that performs color determination processing to determine whether the image data is color image data or monochrome image data.” (See Office Action, at page 4).

Saito also describes that if the user wants to transmit stored images, then the user selects: the images to transmit, its format, a protocol used for transmission, and the destination (see para. [0048]). Saito further states that “if the selected images are monochrome images, S-TIFF, M-TIFF, or PDF (Portable Document Format) can be selected as the format of the images when transmitted. If the selected images are color images or monochrome and color images, JPEG or PDF can be selected.” (See para. [0050]). Therefore, Saito describes that while the choices of format of an image may be narrowed if an image is color or monochrome, the user still is responsible for selecting the format used in transmission and it is not based on a determination by color determination unit as defined in Claim 25.

Therefore, Applicants submit that Saito fails to disclose or suggest “a color determination unit that determines whether the image data received by the image data receiving unit is full-color data or monochrome data; a color conversion unit that performs color conversion on the image data that has been subjected to determination by the color determination unit and stored in the image data storage unit; a format conversion unit that converts a format of the image data that has been subjected to the color conversion by the color conversion unit into a format compatible with the external device; a color conversion change unit that changes the color conversion by the color conversion unit based on a result

of determination by the color determination unit; and a format change unit that changes the format into which the format conversion unit converts the format of the image data based on the result of the determination by the color determination unit,” as defined by new Claim 25.

Applicants note that the Office Action relied on Mitsubori and Asakawa to remedy the deficiencies of Saito with regard to previous Claim 1 (see Office Action, at page 4).

Mitsubori is directed to an image-processing device that recognizes characters of a URL obtained by reading a printout of a webpage and generates image data of the webpage (see para. [0003]). Mitsubori describes that a digital copying machine judges whether an obtained document is a color or monochromatic image by calculating brightness histograms of certain image pixels of the image data (see para. [00146]).

However, even if Mitsubori describes “a color determination unit that determines whether the image data received by the image data receiving unit is full-color data or monochrome data,” the combination of Saito and Mitsubori still fails to disclose or suggest “a color conversion unit that performs color conversion on the image data that has been subjected to determination by the color determination unit and stored in the image data storage unit; a format conversion unit that converts a format of the image data that has been subjected to the color conversion by the color conversion unit into a format compatible with the external device; a color conversion change unit that changes the color conversion by the color conversion unit based on a result of determination by the color determination unit; and a format change unit that changes the format into which the format conversion unit converts the format of the image data based on the result of the determination by the color determination unit,” as defined by new Claim 25.

Asakawa is directed to a method for image reading and image forming. Asakawa describes a background removal mode for an image forming apparatus which can be selected by a user (see para. [0121]-[0122] of Asakawa). Asakawa further describes a shading

operation of a scanned document (see para. [0125]). Asakawa describes that the shading operation is performed immediately after the reading of the image of an original document (see para. [0128] and Fig. 12, step 1212). Then, after a switching operation of an image quality mode or a background removal mode is performed, another shading operation is performed (step 1213). A shading correction circuit 603 makes a correction to image data based on the shading data which was acquired by the shading operation (see para. [0094]). Image processing is then performed in image processing section 604 after the shading correction has been made (see para. [0094]).

However, Applicants submit that Asakawa fails to disclose or suggest “a color determination unit that determines whether the image data received by the image data receiving unit is full-color data or monochrome data; a color conversion unit that performs color conversion on the image data that has been subjected to determination by the color determination unit and stored in the image data storage unit; a format conversion unit that converts a format of the image data that has been subjected to the color conversion by the color conversion unit into a format compatible with the external device; a color conversion change unit that changes the color conversion by the color conversion unit based on a result of determination by the color determination unit; and a format change unit that changes the format into which the format conversion unit converts the format of the image data based on the result of the determination by the color determination unit,” as defined by new Claim 25.

Therefore, Applicants submit that Mitsubori and Asakawa fail to remedy the deficiencies of Saito with regard to new Claim 25. Therefore, Applicants respectfully submit new Claim 25 (and all associated dependent claims) patentably distinguishes over Saito, Mitsubori, and Asakawa, either alone or in proper combination.

Yamada, Horie, Nagarajan, Hayashi, Kawai, Ikeda, Kouzaki, and Kita have been considered have been considered but fail to remedy all of the deficiencies of Saito, Mitsubori, and Asakawa with regard to Claim 25.

In particular, Applicants note that with regard to previous Claim 8, the Office Action takes the position that Kawai discloses “wherein the image processing includes color conversion processing, and the content determination unit determines to perform the color conversion processing based on the result of the determination by the color determination unit.” (See Office Action, at page 13, citing col. 15, lines 26-49 of Kawai). Kawai describes an image processing apparatus in which color space conversion unit will forcibly output color signals Ca and Cb at a zero value when an original image color determination unit determines an image to be monochrome (see col. 15, lines 27-25).

However, Kawai still fails to disclose or suggest “a format conversion unit that converts a format of the image data that has been subjected to the color conversion by the color conversion unit into a format compatible with the external device; and a format change unit that changes the format into which the format conversion unit converts the format of the image data based on the result of the determination by the color determination unit,” as defined by new Claim 25.

Therefore, Kawai fails to remedy all of the deficiencies of Saito, Mitsubori, Asakawa discussed above.

Therefore, Applicants respectfully submit new Claim 25 (and all associated dependent claims) patentably distinguishes over Saito, Mitsubori, Asakawa, Yamada, Horie, Nagarajan, Hayashi, Kawai, Ikeda, Kouzaki, and Kita either alone or in proper combination.

With regard to new Claim 31, Claim 31 recites, *inter alia*,

a color determination unit that determines whether the image data received by the image data receiving unit is full-color data or monochrome data;

a gamma correction unit that performs gamma correction on the image data that has been subjected to determination by the color determination unit and stored in the image data storage unit;

a format conversion unit that converts a format of the image data that has been subjected to the gamma correction by the gamma correction unit into a format compatible with the external device;

a gamma correction change unit that changes the gamma correction by the gamma correction unit based on a result of determination by the color determination unit; and

a format change unit that changes the format into which the format conversion unit converts the format of the image data based on the result of the determination by the color determination unit,

As discussed above, Applicants submit that Saito fails to disclose or suggest “a color determination unit that determines whether the image data received by the image data receiving unit is full-color data or monochrome data, a format conversion unit that converts a format of the image data that has been subjected to the gamma correction by the gamma correction unit into a format compatible with the external device, and a format change unit that changes the format into which the format conversion unit converts the format of the image data based on the result of the determination by the color determination unit.”

Applicants submit that Saito also fails to disclose or suggest “a gamma correction unit that performs gamma correction on the image data that has been subjected to determination by the color determination unit and stored in the image data storage unit, and a gamma correction change unit that changes the gamma correction by the gamma correction unit based on a result of determination by the color determination unit,” as defined by new Claim 31.

Mitsubori, Asakawa, Yamada, Horie, Nagarajan, Hayashi, Kawai, Ikeda, Kouzaki, and Kita have been considered have been considered but fail to remedy all of the deficiencies of Saito with regard to Claim 31.

In particular, Applicants note that with regard to previous Claims 10 and 11, the Office Action takes the position that Kouzaki discloses “wherein the image processing includes gamma correction processing,” and “wherein the content determination unit changes gamma correction data used for the gamma correction processing for each image data (see Office Action, at page 16, citing col. 1, lines 45-64, and col. 7, lines 35-63 of Kouzaki). Kouzaki describes a color image forming apparatus which includes a gamma correction section 89 which provides gamma correction data *based on the lighting conditions* in a reproduced image (see col. 7, lines 35-63).

However, Applicants submit that Kouzaki fails to disclose or suggest “a gamma correction unit that performs gamma correction on the image data that has been subjected to determination by the color determination unit and stored in the image data storage unit, and a gamma correction change unit that changes the gamma correction by the gamma correction unit *based on a result of determination by the color determination unit*,” as defined by new Claim 31.

Additionally, Applicants submit that Kouzaki fails to disclose or suggest “a format conversion unit that converts a format of the image data that has been subjected to the color conversion by the color conversion unit into a format compatible with the external device; and a format change unit that changes the format into which the format conversion unit converts the format of the image data based on the result of the determination by the color determination unit,” as defined by new Claim 31.

Therefore, Kawai fails to remedy all of the deficiencies of Saito with regard to new Claim 31. Thus, Applicants respectfully submit new Claim 31 (and all associated dependent

claims) patentably distinguishes over Saito, Mitsubori, Asakawa, Yamada, Horie, Nagarajan, Hayashi, Kawai, Ikeda, Kouzaki, and Kita either alone or in proper combination.

With regard to new Claim 36, Claim 36 recites, *inter alia*,

a color determination unit that determines whether the image data received by the image data receiving unit is full-color data or monochrome data;

a halftone processing unit that performs halftone processing on the image data that has been subjected to determination by the color determination unit and stored in the image data storage unit;

a format conversion unit that converts a format of the image data that has been subjected to the halftone processing by the halftone processing unit into a format compatible with the external device;

a halftone processing change unit that changes the halftone processing by the halftone processing unit based on a result of determination by the color determination unit; and

a format change unit that changes the format into which the format conversion unit converts the format of the image data based on the result of the determination by the color determination unit.

As discussed above, Applicants submit that Saito fails to disclose or suggest “a color determination unit that determines whether the image data received by the image data receiving unit is full-color data or monochrome data, a format conversion unit that converts a format of the image data that has been subjected to the gamma correction by the gamma correction unit into a format compatible with the external device, and a format change unit that changes the format into which the format conversion unit converts the format of the image data based on the result of the determination by the color determination unit.”

Applicants submit that Saito also fails to disclose or suggest “a halftone processing unit that performs halftone processing on the image data that has been subjected to determination by the color determination unit and stored in the image data storage unit, and a

halftone processing change unit that changes the halftone processing by the halftone processing unit based on a result of determination by the color determination unit” as defined by new Claim 36.

Mitsubori, Asakawa, Yamada, Horie, Nagarajan, Hayashi, Kawai, Ikeda, Kouzaki, and Kita have been considered have been considered but fail to remedy all of the deficiencies of Saito with regard to Claim 36.

In particular, Applicants note that with regard to previous Claim 18, the Office Action takes the position that Nagarajan describes “wherein the image processing further includes halftone processing, and the content determination unit changes a type of halftone processing based on the instruction information.” (See Office Action, at page 19, citing paragraph [0014], [0024], and [0026]).

Nagarajan is directed to a scanner with a dynamic user interface. Nagarajan describes that when scanning a document, a user is presented with setting recommendations through a user interface (see para. [0024]-[0025]). The settings include parameters for auto background suppression (see para. [0026]). There are different suppression levels (mild, normal, strong, and very strong) for the amount of background that needs to be suppressed (see para. [0026], lines 8-11). There are also four types of rendering provided to the user (threshold, error diffusion, halftone, and hybrid screen).

However, while Nagarajan describes presenting recommended settings to a user with regard to halftone rendering, Applicants submit that Nagarajan fails to disclose or suggest “a halftone processing unit *that performs halftone processing on the image data that has been subjected to determination by the color determination unit* and stored in the image data storage unit, and a halftone processing change unit *that changes the halftone processing by the halftone processing unit based on a result of determination by the color determination unit*,” as defined by new Claim 36.

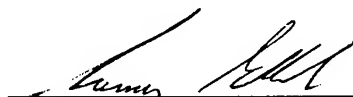
Additionally, Applicants submit that Nagarajan fails to disclose or suggest “a format conversion unit that converts a format of the image data that has been subjected to the color conversion by the color conversion unit into a format compatible with the external device; and a format change unit that changes the format into which the format conversion unit converts the format of the image data based on the result of the determination by the color determination unit,” as defined by new Claim 36.

Therefore, Nagarajan fails to remedy all of the deficiencies of Saito with regard to new Claim 36. Thus, Applicants respectfully submit new Claim 36 (and all associated dependent claims) patentably distinguishes over Saito, Mitsubori, Asakawa, Yamada, Horie, Nagarajan, Hayashi, Kawai, Ikeda, Kouzaki, and Kita either alone or in proper combination.

Consequently, in light of the above discussion and in view of the present amendment, the outstanding grounds for rejection are believed to have been overcome. The present application is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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